



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

FEB 22 2013

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

REPLY TO THE ATTENTION OF:

Jesse Trent, HSSE Advisor  
Criterion Catalysts and Technologies, L.P.  
1800 East U.S. 12  
Michigan City, Indiana 46360

**Re: Finding of Violation**  
Criterion Catalysts and Technologies, L.P.  
Michigan City, Indiana

Dear Mr. Trent:

This is to advise you that the U.S. Environmental Protection Agency has determined that the Criterion Catalysts and Technologies, L.P. facility at 1800 East U.S. 12, Michigan City, Indiana ("facility," "Criterion," or "you") is in violation of the Clean Air Act (CAA). A list of the requirements violated is provided below. We are today issuing to you the enclosed Finding of Violation (FOV) under Section 113(a)(3), 42 U.S.C. § 7413(a)(3), of the Clean Air Act (CAA).

Section 111 of the CAA requires EPA to implement the New Source Performance Standards (NSPS) program. The NSPS are nationally uniform emission standards for new or modified stationary sources falling within industrial categories that significantly contribute to air pollution. As discussed more fully in the enclosed FOV, Criterion is subject to and in violation of the Standards of Performance for Calciners and Dryers in Mineral Industries at 40 C.F.R. Part 60, Subpart UUU (NSPS Subpart UUU).

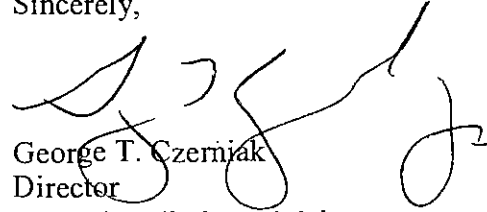
In addition, we find that you have violated the Title V Permit Program requirements of the CAA at 42 U.S.C. §§ 7661a-7661f, and the implementing regulations at 40 C.F.R. Part 70 at your Michigan City, Indiana, facility.

We have several enforcement options under Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3). These options include issuing an administrative compliance order, issuing an administrative penalty order and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the FOV. The conference will give you the opportunity to present information on the specific findings of violation, any efforts you have taken to comply, and any steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference.

The EPA contact in this matter is Michelle Heger. You may call her at (312) 886-4510 to request a conference. You should make the request within 10 calendar days following receipt of this letter and we should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Czerniak", is written over the printed name and title.

George T. Czerniak  
Director  
Air and Radiation Division

Enclosure:

cc: Phil Perry, Chief  
Air Compliance and Enforcement Branch  
Indiana Department of Environmental Management

1. Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate except in compliance with a Title V permit.
2. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that any person has violated or is in violation of a requirement or prohibition of Title V of the CAA, or any rule promulgated, issued or approved under Title V of the CAA.
3. U.S. EPA granted interim approval to the Indiana Title V operating permit program on December 14, 1995, and full approval on November 30, 2001.
4. Permit Condition D.1.5(a) of Criterion's Title V permit requires a visual emission reading of the exhaust from the stacks for the units designated as "S-C1 and S-C2" (DCC baghouse), "P-BBL" (stack BB, using baghouses E-160 and E-176), "P-BL" (stack CC, using baghouse E-190), and "P-BLR" (stack GG, using baghouse E-190) once per day when the units are exhausting to the atmosphere.

5. Permit Condition D.1.5(e) of Criterion's Title V permit states that if abnormal emissions are observed during the visual emission reading required in D.1.5(a), Criterion shall take reasonable response steps in accordance with Section C of the Title V permit. Failure to take response steps shall be considered a deviation.
6. Permit Condition D.1.6 of Criterion's Title V permit requires Criterion to maintain records of the pressure drop once per day across the baghouses used in conjunction with the processes identified as "S-C1 and S-C2" (DCC baghouse), "P-BBL" (stack BB, baghouses E-160 and E-176), "P-BL" (stack CC, baghouse E-190), and "P-BLR" (stack GG, baghouse E-190) when the process is in operation. When, for any one reading, the pressure drop across the baghouses is outside the normal range of 1.0-6.0 inches of water, Criterion must take reasonable response steps in accordance with Section C of the Title V permit.
7. Permit Condition D.1.6 of Criterion's Title V permit requires that the instrument used for determining the pressure as described in Paragraph 6, shall be calibrated at least once every six months.
8. Permit Condition C.14(d) of Criterion's Title V permit states that a failure to take reasonable response steps to permit excursions or exceedances shall be considered a deviation from the permit.
9. Permit Condition C.14(e) of Criterion's Title V permit states that Criterion shall record the reasonable response steps taken when an excursion or exceedance from the permit requirements is detected.

#### **NSPS Subpart UUU**

10. On September 28, 1992, EPA promulgated the Standards of Performance for Calciners and Dryers in Mineral Industries. 57 Fed. Reg. 44503 (September 28, 1992). Since then, EPA has amended these standards at 58 Fed. Reg. 40591 (July 29, 1993) and at 65 Fed. Reg. 61778 (October 17, 2000). These standards are codified at 40 C.F.R. Part 60, Subpart UUU (NSPS Subpart UUU).
11. 40 C.F.R. § 60.730 of NSPS Subpart UUU applies to each calciner and dryer at a mineral processing plant. The owner or operator of any affected facility that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of NSPS Subpart UUU.
12. 40 C.F.R. § 60.732(a) of NSPS Subpart UUU states that no emissions shall be discharged from any affected facility that contains particulate matter (PM) in excess of 0.057 g/dscm for dryers.
13. 40 C.F.R. § 60.734(a) states that an owner using a dry control device to comply with the standard at § 60.732 must use a continuous monitoring system (COM) to measure and record the opacity discharged from the control device.

14. 40 C.F.R. § 60.734(d) requires an owner or operator who uses a wet scrubber control device to comply with the standard at § 60.732 shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber.
15. 40 C.F.R. § 60.735(b) states that the owner or operator using a wet scrubber to comply with § 60.732 must also determine and record once each day, from the recordings of the monitoring devices, an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid. An exceedance is defined in § 60.735(c)(2) and (3) as any daily 2-hour average of the wet scrubber pressure drop that is less than 90% of the average value recorded during the most recent performance test or each daily wet scrubber liquid flow rate recorded that is less than 80% or greater than 120% of the average value recorded in the most recent performance test (Method 5) that demonstrated compliance with the particulate matter standard.
16. 40 C.F.R. § 60.735(c) requires that each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored in 40 C.F.R. § 60.734.

#### **Alternative Monitoring Plan**

17. In a letter dated September 6, 2007, EPA determined that, rather than using the gas phase pressure drop as the continuous monitoring parameter as required in 40 C.F.R. §§ 60.734(d) and 60.735(b) of NSPS Subpart UUU, the ratio of scrubbing liquid to flue gas treated (liquid-to-gas ratio, "L/G ratio") is a more appropriate monitoring parameter for a wet scrubber that does not use a Venturi design for PM control. EPA required Criterion to conduct a performance test of the spray dryer and determined that Criterion shall continuously monitor and record the liquid to gas ratio of the scrubber to be compared to the results of the test as an Alternative Monitoring Plan (AMP) to the requirements of 40 C.F.R. §§ 60.734(d) and 60.735(b) of NSPS Subpart UUU.
18. In a letter dated November 5, 2008, EPA approved an additional AMP for the baghouse system at the facility. The baghouse system AMP consists of continuous monitoring of the opacity of exhaust gases in the ductwork between the baghouse system and scrubber as an alternative to monitoring the opacity at the outlet of the scrubber. Per the November 5, 2008 AMP approved by EPA, Criterion must monitor both the opacity exiting the baghouses and the ratio of scrubbing liquid to flue gas treated in the scrubber in order to comply with NSPS Subpart UUU PM standards at § 60.732(a).
19. The November 5, 2008 AMP approved by EPA states that "exceedances of the L/G operating parameter would be defined as any two hour period when the average L/G ratio is less than 80 percent of the average L/G ratio from all measurements of the test runs in the most recent performance test that demonstrates compliance, or in this case, 0.004778."

20. In a December 18, 2009 letter from EPA to Criterion, EPA states that any scrubber operating parameter exceedances shall be reported as part of the facility's NSPS semi-annual report.

### **Criterion facility**

21. Criterion is a "person," as that term is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e).
22. Criterion currently owns and operates the facility located at 1800 East U.S. 12, Michigan City, Indiana ("the facility").
23. Criterion operates a spray dryer system at the facility. The spray dryer system is equipped with three baghouses followed by a non-Venturi-type wet scrubber. Additional equipment at the site includes fabric filters for PM control on each storage silo.
24. The dryer at the facility is an affected facility as defined in 40 C.F.R. §§ 60.730 and 60.731. It is subject to the PM emission standard of 0.057 g/dscm at 40 C.F.R. § 60.732(a).
25. The facility is a major source of PM.
26. Indiana Department of Environmental Management issued Title V permit No. 091-21619-00053 to Criterion Catalysts and Technologies, L.P. on June 9, 2010.
27. EPA conducted a Clean Air Act inspection of the facility on May 8-10, 2012.
28. Unit P-BBL (bulk bag loading process) utilizes both baghouses E-160 and E-176 which vent through a single stack designated as "Stack BB."
29. During the inspection on May 8-10, 2012, EPA observed white powder accumulated around the base of the baghouse associated with Unit P-BBL (Stack BB) identified as baghouse "E-160."

### **Violations**

30. During the inspection on May 8-10, 2012, Criterion stated that the instruments monitoring baghouse pressure have never been calibrated. Since at least June 9, 2010, Criterion has operated in violation of Title V permit Condition D.1.6.
31. During the inspection on May 8-10, 2012, Criterion stated that only the pressure reading from Baghouse E-176 has been recorded for Unit P-BBL. From March 2008 to April 2012, Criterion has not recorded the pressure readings on the E-160 baghouse, associated with unit P-BBL and Stack BB in violation of Title V Permit Condition D.1.6.

32. According to Criterion's Visible Emissions Logs from March 2008 to April 2012, Criterion operated outside of the normal range of 1.0-6.0 inches of water on the baghouses associated with the Units S-C1, S-C2, P-BL, P-BBL, and P-PBL for the following dates:

Unit/Stack	Year	Total Days < 1.0"	Total Days > 6.0"	Lowest/Highest Pressure Value Recorded
Baghouses E-160/E-176 Stack BB Unit P-BBL	2010	22		0.1"
Baghouse E-190 Stack CC Unit P-BL	2008	32		0"
	2009	50		0.05"
Baghouse E-190 Stack GG Unit P-BLR	2008		51	11"
	2009	67		0.1"
DCC Baghouse Units S-C1 and S-C2	2008	19		0.25"
	2009	36		0.24"
	2010	84		0.2"
	2011	74		0.21"

The extended dates that Criterion operated outside of the required 1"- 6" range indicates a failure to initiate effective corrective actions to restore operation of the emissions unit and control device and associated capture system to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions, as required by Title V permit Condition C.14, and in violation of Title V Permit Condition D.1.6.

33. According to Criterion's Visible Emissions Logs, Criterion failed to monitor baghouse pressure, as required by, and in violation of, Title V permit Condition D.1.6 for the following extended days from January 1, 2008 to April 30, 2012 as indicated below:

Unit/Stack	Year	Days
Baghouses E-160/E-176 Stack BB Unit P-BBL	2010	119
	2011	22
Baghouse E-190 Stack CC Unit P-BL	2008	11
	2010	119
	2011	21
Baghouse E-190 Stack GG Unit P-BLR	2008	10
	2010	119
DCC Baghouse Units S-C1 and S-C2	2010	90
	2011	22

34. Criterion's operation in violation of its Title V permit constitutes a violation of Section 502 of the CAA and of 40 C.F.R. § 70.7(b).

35. Criterion's scrubber ratio data indicate that Criterion operated below the required minimum L/G ratio of 0.004778, for extended periods of time from January 1, 2010 to April 30, 2012, in violation of the facility's AMPs dated September 6, 2007, November 5, 2008, and December 18, 2009 and NSPS Subpart UUU at 40 C.F.R. § 60.735(b) and, therefore, the PM standard at § 60.732(a), as indicated below:

Year	Number of Days L/G Ratio < 80% of Minimum
2010	24
2011	105
Jan-April 2012	46

36. From at least 2010 to 2012, Criterion failed to report exceedances of the facility's scrubber ratios, as required by the approved AMPs, and in violation of the facility's AMPs and NSPS Subpart UUU at 40 C.F.R. § 60.735(c).

Date

2/22/13

George T. Czerniak  
Director  
Air and Radiation Division



**CERTIFICATE OF MAILING**

*Elizabeth Rosado*

I, ~~Loretta Shaffer~~, certify that I sent a Finding of Violation, No. EPA-5-13-IN-05, by Certified Mail, Return Receipt Requested, to:

Jesse Trent, HSSE Advisor  
Criterion Catalysts and Technologies, L.P.  
1800 East U.S. 12  
Michigan City, Indiana 46360

I also certify that I sent copies of the Finding of Violation by first-class mail to:

Phil Perry, Chief  
Air Compliance and Enforcement Branch  
Indiana Department of Environmental  
Management  
100 N. Senate Ave.  
Mail Code 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

On the 25 day of February 2013

*Elizabeth Rosado*  
for ~~Loretta Shaffer~~  
Administrative Program Assistant  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER:

7009 1680 0000 7669 5350